

LD

Notice of Allowability	Application No.	Applicant(s)	
	09/682,683	LAHIFF, MARK STEVEN	
	Examiner	Art Unit	
	Mark Ruthkosky	1745	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/6/2005.
2. ☒ The allowed claim(s) is/are 8, 11, 12 and 14-17.
3. ☒ The drawings filed on 05 October 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Mark Ruthkosky
3/11/05

DETAILED ACTION

Claim Rejections - 35 USC § 102

The rejection of claims 8-17 under 35 U.S.C. 102(e) as being anticipated by Woody et al. (US 6,488,345) has been overcome by the applicant's amendment. Support for the applicant's amendment is noted on page 5 and in figure 9.

Allowable Subject Matter

Claims 8, 11, 12, and 14-17 are allowed.

The following is an examiner's statement of reasons for allowance. The instant claims are to a method for dissipating electrical power in a vehicle comprising a fuel cell power system for generating electricity and a regenerative braking system for converting kinetic energy to electrical energy, and said vehicle having an electrical power storage device for storing electrical energy from the regenerative braking system and for supplying electrical energy to a motor in the drive train of said vehicle, said fuel cell power system comprising a fuel cell stack of at least one fuel cell for generating electrical power and a compressor for delivering gas containing oxygen to the fuel cell stack, said method comprising determining an amount of electrical power to be dissipated by summing the minimum amount of electrical power that can be generated by said fuel cell system and said regenerative braking system, and subtracting the amount of electrical power required by the vehicle and subtracting an amount of electrical power capable of being stored in the electrical power device; operating the compressor to draw electric current as required to dissipate the amount of electrical power; and valving the compressor to reduce the

Art Unit: 1745

delivery of gas to the fuel cell stack. The intended use limitations of the claim are given patentable weight as the features are used in the method steps for dissipating electrical power. The prior art does not teach the method, as claimed, comprising determining an amount of electrical power to be dissipated by summing the minimum amount of electrical power that can be generated by said fuel cell system and said regenerative braking system, and subtracting the amount of electrical power required by the vehicle and subtracting an amount of electrical power capable of being stored in the electrical power device.

The most pertinent prior art has been presented. Woody et al. (US 6,488,345) teaches a method for dissipating electrical power in a batteriless vehicle comprising a fuel cell power system for generating electricity and a regenerative braking system for converting kinetic energy to electrical energy (claims 18-25.) The fuel cell power system comprises a fuel cell stack for generating electrical power and a compressor for delivering gas containing oxygen to the fuel cell stack. The method comprises determining an amount of electrical power to be dissipated; operating the compressor to draw electric current as required to dissipate the amount of electrical power; and valving the compressor to reduce the delivery of gas to the fuel cell stack (claims 18-25, column 4, and column 5, lines 1-15 and 48-65.) Figures 3-4 show a controller and power distribution device for providing power to respective loads.

The reference does not teach the method, as claimed, comprising determining an amount of electrical power to be dissipated by summing the minimum amount of electrical power that can be generated by said fuel cell system and said regenerative braking system, and subtracting the amount of electrical power required by the vehicle and subtracting an amount of electrical power capable of being stored in the electrical power device. It is noted that the claims of the

Art Unit: 1745

reference are to a batteriless fuel cell vehicle. As the prior art does not teach a method, as claimed, for dissipating electrical power in a vehicle having a fuel cell power generating system, the claims are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Examiner Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Ruthkosky whose telephone number is 571-272-1291. The examiner can normally be reached on FLEX schedule (generally, Monday-Thursday from 9:00-6:30.) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached at 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free.)

Application/Control Number: 09/682,683

Page 5

Art Unit: 1745

Mark Ruthkosky

Primary Patent Examiner

Art Unit 1745

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3/11/05